

# DIABETES BASICS



**Staying Healthy With Diabetes**

# DIABETES BASICS

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This booklet is designed to give you basic information about diabetes. It is not meant to take the place of diabetes education classes or meeting with your health care team.

Ask your local health department or health care provider about diabetes education classes and an appointment with a dietitian.

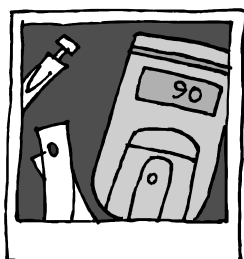
# What Is Diabetes?

Diabetes is a medical condition that keeps your body from processing food normally.

**Type 1 diabetes:** your body can no longer make insulin.

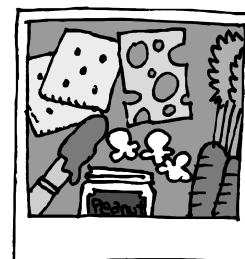
**Type 2 diabetes:** your body may still make insulin but it doesn't work effectively.

In either case, sugar builds up in the blood, causing diabetes.



**These are four things you can to do to stay healthy with diabetes:**

**1. Monitor your blood sugar**



**2. Take your medication, if prescribed**



**3. Eat healthy**

**4. Exercise regularly**



## You're Not Alone . . .

Learning that you have diabetes can be overwhelming and scary. The good news is, there is support. Ask your health care provider about classes, support groups and other services they offer for people with diabetes.



# Why Should I Control My Blood Sugar?

## High blood sugar can lead to problems such as:

- Heart Disease
- Nerve Damage
- Stroke
- Circulation Problems
- Eye Disease
- Kidney Disease

## To help prevent these problems you can do the following:

### Every day:

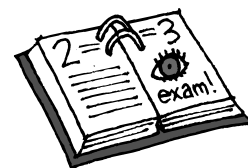
- Follow your diabetes meal plan
- Exercise
- Take your medication as prescribed
- Check your blood sugar
- Check your feet
- Brush and floss your teeth
- Find positive ways to cope with stress
- Don't smoke- if you do, then quit!

### At every office visit:

- Foot inspection
- Get your blood pressure and weight checked
- Take your blood sugar log book and discuss

### At least every six months:

- Get an A1C test
- See your dentist



### At least every year get a:

- Cholesterol and blood fat check
- Dilated eye exam
- Kidney exam
- Flu shot
- Foot exam



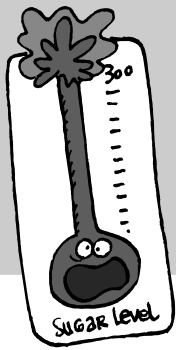
## Taking care of yourself makes a difference!



If you are overweight, losing 5-7% of your weight can make a big difference in controlling your blood sugar.

For example:

If you weigh 200 lbs, try to lose 10-14 lbs.



# Hyperglycemia

## High Blood Sugar

(above goal range set with your health care professional)

### Causes

- Too much food
- Too little medication
- Sickness, infection, or stress
- Less exercise than normal

### You may feel any of these symptoms:

(May have no symptoms)

Hungry  
Headache  
Nausea

Slow-healing Wounds  
Weight Loss

(mainly Type 1)



Thirsty



Blurry Vision



Frequent  
Urination

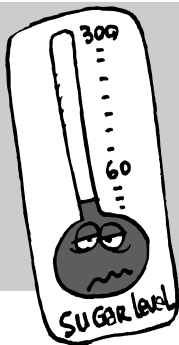


Tired

### Treatment

- Check ketones with ketone strips if sugar is above 300 mg/dl. Ketones form when the body starts to use its own fat instead of sugar for energy. They act like a poison to your body. If you have ketones, call your health care provider immediately.
- Drink plenty of sugar-free liquid.
- Make a plan with your health care professional if your blood sugar is high. Work with your health care provider on this plan.





# Hypoglycemia

## Low Blood Sugar

(about 72 mg/dl or below)

### Causes

- Too little food
- Too much medication
- Extra exercise

### You may feel any of these symptoms:

Tired  
Weak  
Irritable  
Confused  
Blurry Vision  
Headache



Dizzy



Numb



Sweaty



Shaky

### Treatment

- Check blood sugar. If you can't check but you have symptoms, treat anyway.
- If blood sugar is low, follow Rule of 15:

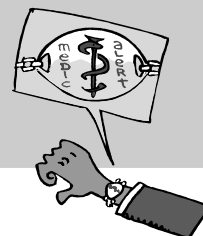
#### Rule of 15:

1. **Eat 15 grams** of carbohydrate such as 3-4 glucose tablets, 15g glucose gel, 1/2 cup juice or regular soft drink, 1 cup milk, or 1 Tbsp honey or sugar.
2. **Wait 15 minutes**
3. **Retest** blood sugar.

If blood sugar is still low or you still have symptoms, repeat Rule of 15. If meal or snack is scheduled soon, go ahead and eat. Be aware that your blood sugar may fall low again if food isn't eaten within the next hour.



**Always wear  
diabetes identification**



# Tips For Medications

- Know the name of your pill and the amount to take.
- Know when to take your pill.
- Make a list of your medications and carry it with you.
- Call your health care provider about any side effects you may experience.
- Never stop taking medication or change dosage without asking your health care provider.
- Feel comfortable asking your pharmacist questions about your medications.



## Insulin

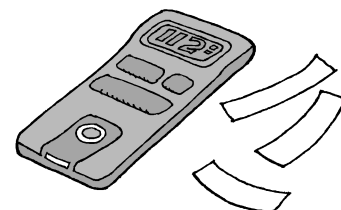


If you have Type 1 diabetes, you must take insulin to live. With Type 2 diabetes, you may take pills or insulin or both. Your health care provider should teach you how to take insulin, but remember the following:

- Check the expiration date on the insulin bottle or pen.
- Look at the insulin to make sure there are no solids or frosting in the bottle.
- Never freeze insulin or keep it in places above 80 degrees such as the car or in sunlight.
- Gently roll bottle between palms to warm up cold insulin before injecting.
- Ask your pharmacist or health care provider if the insulin should be mixed.
- Measure insulin carefully for the correct amount.
- Dispose of needles appropriately. Check with your health care provider, diabetes educator, and/or trash company about proper disposal of these items.

# Monitoring Your Blood Sugar

Ask your health care provider where you can get a blood sugar monitor. Bring your monitor everywhere with you so you can see how things such as eating, exercising, and stress affect your blood sugar.



- Follow the instructions that come with your blood sugar monitor.
- Code your monitor to the box of test strips you are using, if your monitor requires coding.
- Store your strips in the original package and at room temperature.
- Do not use expired strips.
- Wash your hands with soap and warm water before checking your blood sugar.
- Be sure you have enough blood on your test strip.
- Dispose of your lancet properly. Check with your health care provider, diabetes educator, and/or trash company about disposal of these items.
- Record your blood sugar in your log book. Bring your logbook to each medical visit.
- Follow guidelines for highs and lows on pages 3-4.

## How often should I check my blood sugar?

Many people check their blood sugar several times throughout the day. Ask your health care provider how often they would like you to check.

## What times should I check?

Before and two hours after meals, before and after exercise, and anytime you feel different than usual are good times to check your blood sugar. Ask your health care provider what times are best for you.



## What should my numbers be?

Fasting Blood Sugar	Blood Sugar 1-2 hours after eating
90-130 mg/dl	less than 180mg/dl

## A1C Test

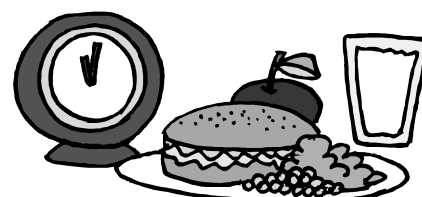
Another test for blood sugar is the Hemoglobin A1C. This can be done by your health care provider. This test tells what your average blood sugar levels have been for the past 2 to 3 months. For good diabetes control, it is best to keep your A1C less than 7%.



# Nutrition

Eating right with diabetes doesn't mean you have to give up your favorite foods. Learning how to eat healthy is a key part of good diabetes care. Good diabetes meal planning includes:

- Choosing healthy foods
- Learning how different foods and the amount eaten affect your blood sugar
- Eating three meals a day at regular times



Carbohydrates are starches and sugars in food. They have more effect on blood sugar than protein or fat. Foods such as bread, pasta, potatoes, milk, fruit, and sweets are examples of foods high in carbohydrate. It's not that you can't eat these foods, you just need to watch that you don't have too much at one meal. Your blood sugar may go too high when you eat more carbohydrates than your body needs.

Set up an appointment with a dietitian to discuss your meal plan and how many grams of carbohydrates you should be eating for meals and snacks. The Food Guide Pyramid on page 8 is a good place to start.

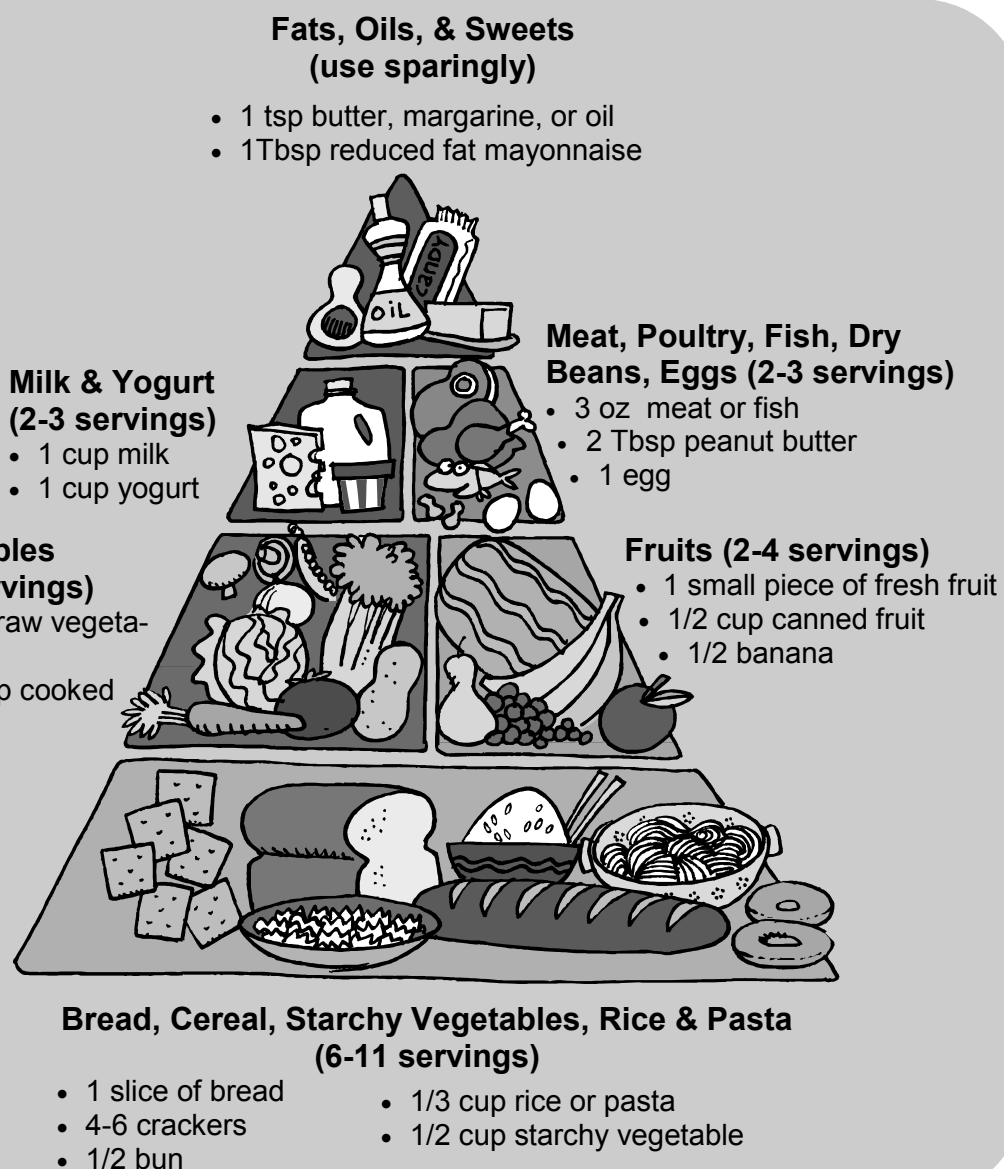
## Tips

- Bake, broil or grill foods rather than fry them.
- Limit foods loaded with sugar such as regular soft drinks or desserts.
- Non-starchy vegetables such as carrots, celery, and broccoli are high in fiber, but low in calories and make great snacks!

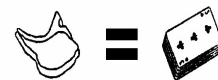


# Food Guide Pyramid

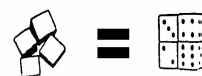
The Food Guide Pyramid gives you an idea of how many servings of each food group to eat every day. A healthy meal plan includes foods from all major food groups.



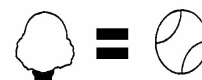
**What does a serving look like?**



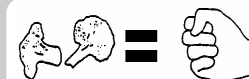
3 ounces of meat is about the size and thickness of a deck of playing cards



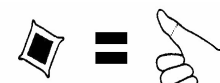
1 oz of cheese is about the size of 4 stacked dice



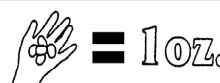
1/2 cup of ice cream is about the size of a tennis ball



1 cup of veggies is about the size of your fist



1 teaspoon of butter or peanut butter is about the size of the tip of your thumb



1 ounce of nuts or small candies equals one handful

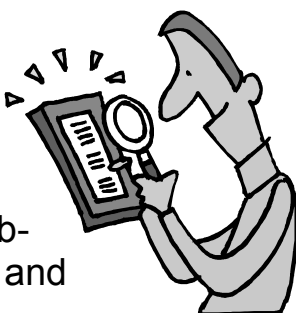
# Reading Labels

Learning to read labels is a key to healthy eating. Below are four of the most important parts of a food label:

- 1. Serving Size:** Use measuring spoons or cups to see what it looks like. All the nutrition information listed is for one serving. If you eat two servings, multiply everything by two.
- 2. Total Carbohydrate:** Some carbohydrate is needed everyday, but too much may make blood sugar too high. Total carbohydrate includes grams of sugar. Watching total carbohydrate is more important than grams of sugar. If something is sugar-free, it doesn't mean it's carbohydrate-free. It is also good to look for foods high in dietary fiber. Your dietitian can tell you how many grams of carbohydrate you need.
- 3. Calories:** This is key for weight loss.
- 4. Total Fat:** A low-fat food is less than three grams of fat. Try to choose mostly low-fat foods.

## Sugar Substitutes

To cut carbohydrates, try sugar substitutes that are carbohydrate-free and considered safe.



### Nutrition Facts

Serving Size: 3/4 cup (33g/1.2 oz.)  
Servings Per Container: about 11

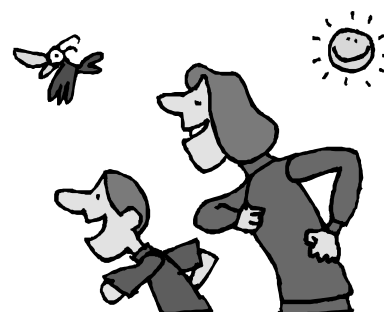
Amount Per Serving	
<b>Calories</b> 110	<b>Calories from Fat</b> 15
<b>% Daily Value**</b>	
<b>Total Fat</b> 1.5g*	<b>2%</b>
Saturated Fat 0g	<b>0%</b>
Trans Fat 0g	
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 90mg	<b>4%</b>
<b>Potassium</b> 120mg	<b>3%</b>
<b>Total Carbohydrate</b> 25g	<b>8%</b>
Dietary Fiber 5g	<b>20%</b>
Soluble Fiber 1g	
Insoluble Fiber 4g	
Sugars 5g	
Other Carbohydrate 15g	
<b>Protein</b> 4g	
Vitamin A 25% (25% DV as beta carotene)	
Vitamin C 50%	Calcium 0%
Iron 10%	Vitamin E 100%
Vitamin B6 100%	Folic Acid 100%
Vitamin B12 100%	Phosphorus 10%
Magnesium 25%	Zinc 10%
* Amount in cereal. One half cup of fat free milk contributes an additional 40 calories, 65mg sodium, 6g total carbohydrates (6g sugars), and 4g protein.	
** Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.	
	Calories: 2,000 2,500
Total Fat	Less Than 65g 80g
Sat. Fat	Less Than 20g 25g
Cholesterol	Less Than 300mg 300mg
Sodium	Less Than 2,400mg 2,400mg
Potassium	3,500mg 3,500mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g
Protein	50g 65g
Calories per gram:	
Fat 9 • Carbohydrate 4 • Protein 4	

Brand Name	Name listed in ingredients
Sweet'N Low, Sugar Twin, or Sucaryl	Saccharin
Equal or NutraSweet	Aspartame
Sweet One	Acesulfame K
Splenda	Sucralose

# Exercise

Regular exercise is a key part of your diabetes treatment plan. For most people with type 2 diabetes, exercise helps keep blood sugars in a healthy range. Exercise may also:

- Reduce stress and increase energy
- Increase strength and range of motion
- Help control blood pressure and cholesterol
- Make insulin work better



Choose an exercise you enjoy, plan for exercise, and find an exercise buddy. If you haven't exercised in a while, begin slowly. For example, adding a five minute walk to your day may be a good start. Work up to at least 30 minutes a day.

## Things to carry with you when exercising:

1. Phone numbers of family and health care providers in case of an emergency
2. Cell phone or change to make a phone call
3. Blood sugar monitor
4. Diabetes identification
5. Emergency food to treat low blood sugar such as glucose tablets (See page 4)



## Exercising Safely

- **SEE YOUR HEALTH CARE PROVIDER BEFORE BEGINNING ANY EXERCISE PROGRAM.**
- Drink plenty of sugar-free fluids like water.
- Check your blood sugar before and after exercise since people with diabetes are at higher risk for a low blood sugar during and several hours after exercise.
- Wear good fitting shoes while exercising and check your feet before and after exercise.
- Include a warm-up and cool-down with each workout.
- Avoid an intense workout outdoors if it is very hot, humid, smoggy or cold.



# Sick Days

When you are sick with a cold, flu or infection, it can make your blood sugar go higher than usual. It is important to have a plan for your sick days **BEFORE** you get sick. Discuss this plan with your health care provider.



## Call your health care provider if you:

- Have two blood sugars in a row over 300 mg/dl or several low blood sugars in a row
- Lose 5 lbs or more when you are sick
- Have vomiting or diarrhea for more than six hours
- Can't eat solid foods for more than 24 hours
- Can't keep liquids down
- Feel dizzy, confused, or in pain

## Sick Day Foods

Try your best to eat regular meals. If you can't, here are some examples of foods to keep your carbohydrate intake about the same:

- 1/2 cup pudding
- 4-6 crackers
- 1/2 cup regular gelatin
- 1/2 cup juice

## Sick Day Tips

- Never stop taking your diabetes pills or insulin without talking to your health care provider.
- Check your blood sugar at least every four hours when you're sick.
- Drink water to prevent dehydration.



# Notes

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## Resources

- **Kentucky Diabetes Prevention and Control Program**  
[www.chfs.ky.gov/dph/ach/diabetes](http://www.chfs.ky.gov/dph/ach/diabetes) 502-564-7996
- **American Diabetes Association**  
[www.diabetes.org](http://www.diabetes.org) 1-800-DIABETES
- **American Association of Diabetes Educators**  
[www.diabeteseducator.org](http://www.diabeteseducator.org) 1-800-338-3633
- **National Diabetes Education Program**  
[www.ndep.nih.gov](http://www.ndep.nih.gov) 1-301-496-3583
- **Centers for Disease Control and Prevention**  
[www.cdc.gov/diabetes](http://www.cdc.gov/diabetes) 1-877-CDC-DIAB
- **Kentucky Diabetes Network, Inc.**  
[www.kentuckydiabetes.net](http://www.kentuckydiabetes.net)
- **American Dietetic Association**  
[www.eatright.org](http://www.eatright.org) 1-800-877-1600



## Contact Information

Write in the names and phone numbers for your diabetes care team :

**Health Care**

**Provider:** \_\_\_\_\_

**Phone:** \_\_\_\_\_

**Dietitian:** \_\_\_\_\_

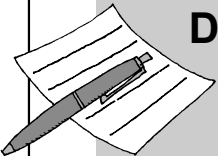
**Phone:** \_\_\_\_\_

**Nurse:** \_\_\_\_\_

**Phone:** \_\_\_\_\_

**Other:** \_\_\_\_\_

**Phone:** \_\_\_\_\_





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